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Stigma towards people with mental disorders in adolescents: Comparison between Portugal and Moldova

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This dissertation is based on a manuscript, presented in section results. For its preparation I was responsible for data analysis and the drafting of the initial version

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Resumo

Introdução: Os transtornos mentais são um dos desafios mais significativos para a saúde pública pela sua prevalência e impacto na população. O estigma em relação às pessoas com transtornos mentais dificultam o controlo da patologia e das suas consequências, quer por condicionarem a procura de cuidados adequados quer por contribuírem para o aumento da depressão e da ansiedade.

Objectivo: estudar o estigma em relação às pessoas com transtornos mentais em adolescentes e compreender as diferenças entre Portugal e a Moldávia.

Métodos: Foi realizada uma análise transversal de 657 alunos do ensino secundário em Portugal e 612 alunos da Moldávia. Os dados foram recolhidos utilizando um questionário anónimo que, para além do estigma, avaliou características individuais e familiares dos participantes. O estigma foi avaliado utilizando duas escalas, uma de avaliação geral - The Attribution Questionnaire for Children (AQ-8-C), e outra específica para a depressão - test The Depression Stigma Scale (DSS). As pontuações nas escalas de estigma foram comparadas usando T student test ou ANOVA.

Resultados: Os níveis de estigma [média (desvio padrão)], medidos pelo AQ -8-C, foram 32.10 (8.77) na Moldávia e 24.32 (9.20) em Portugal ($p < 0.001$). Os adolescentes da Moldávia apresentaram valores mais elevados para todos os itens, exceto para "medo", que teve valores mais elevados em Portugal e para "ajuda" que não foram encontradas diferenças significativas entre os países.

Em relação ao estigma contra pessoas com depressão, também se verificaram maiores níveis nos adolescentes da Moldávia, quer quando avaliado o estigma do indivíduo [19.84 (4.78) vs. 15.09 (5.08) $p < 0.001$] quer considerando a sua percepção do estigma existente na comunidade [26.43 (4.30) vs. 22.62 (5.15) $p < 0.001$].

Em nenhum dos países se observaram diferenças estatisticamente significativas nos níveis de estigma, geral ou específico para depressão, de acordo com a história familiar de doença mental.

Conclusões: O nível de estigma em relação às pessoas com transtornos mentais é mais elevado na Moldávia do que em Portugal. Contudo o nível de escolaridade e o contacto não mostraram efeito significativo.

Abstract

Introduction: Mental disorders are one of the most significant public health challenges because of its prevalence and impact on the population. Stigma towards people with mental disorders make it difficult to control the disease and its consequences, by conditioning the search for appropriate care and can contribute to the increase of depression and anxiety.

Objective: To study stigma towards people with mental disorders in adolescents and to evaluate differences between Portugal and Moldova.

Methods: A cross-sectional analysis of 657 secondary school students in Portugal and 612 students in Moldova was held. Data were collected using an anonymous questionnaire that, in addition to the stigma assessed individual and family characteristics of the participants. The stigma was assessed using two scales, a general assessment - The Attribution Questionnaire for Children (AQ-8-C) test, and other specific for depression test - The Depression Stigma Scale (DSS). The scores on the stigma scales were compared using student t test or ANOVA.

Results: The levels of stigma [median (standard deviation)], measured by AQ-8-C, was 32.10 (8.77) in Moldova and 24.32 (9.20) in Portugal ($p < 0.001$). Adolescents from Moldova presented higher values for all the items, except for “fear”, that had higher values in Portugal and for “help” that no significant differences were found between countries.

In relation to stigma against people with depression, also higher levels were found in adolescents in Moldova, when evaluating individual stigma [19.84 (4.78) vs. 15.09 (5.08) $p < 0.001$] and when considering perceived stigma existent in community [26.43 (4.30) vs. 22.62 (5.15) $p < 0.001$].

In none of the countries were observed statistically significant differences in the levels of stigma, general or specific for depression, according to the family history of mental disorder.

Conclusions: The level of stigma towards people with mental disorders is higher in Moldova than in Portugal. However the level of education and contact showed no significant effect.

Key words: Stigma, Mental Disorders, Adolescents.

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List of abbreviations

ADHD – attention deficit and hyperactivity disorder

AQ-8-C – attribution questionnaire with 8 items for children

CI – confidence interval

DSS – depression stigma scale

SPSS – statistical package for social sciences

Introduction

1. Burden of Mental Disorders

According to World Health Organization (WHO) mental disorders are one of the most significant public health challenges (1). In the European Region, mental disorders represent 11.8% from total DALYs per 100000 population. In this region the mental disorders that represent higher impact are: Unipolar depressive disorders (3rd place from all causes) – 3.8%; Alcohol use disorders (6th place) — 2.9%; Alzheimer's disease and other dementias (12th place) – 1.9%; Self-harm (13th place) – 1.8% and Anxiety Disorder (17th place) – 1.4% (2). Population that meet the criteria for one common mental disorder increased from 17.5% in 2007 to 21.6% in 2012, only 24% of those receiving treatment. Women were more likely to report ever been diagnosed with a mental disorder (33% compared with 19% for men). The most frequently reported diagnosis was depression (19% of adult population). People from lower income households were more likely to have ever been diagnosed with a mental disorder. (3)

Although adolescence is, in general, a healthy period of life, mental disorders are the most frequent in this age group (4; 5). Around 15.6% of adolescents aged from 12 to 15-year-olds met the criteria for a current psychiatric disorder (6). Recently, a study of 6,085 adolescents aged from 12 to 19-year-olds indicated that 11% of the sample were classified as having mild depression, 11% had moderate depression, while 8% had severe depression (4). This data suggests that around 30% of young people experience some level of depression. Moreover, the study showed that the percentage of these disorders increased with developmental age. In other studies in different European countries it is estimated that 9.5% of adolescents have a psychiatric condition (7; 8). Based on these prevalence rates we can conclude that psychiatric disorders exist in every classroom.

Mental health disorders in adolescence often persists during the life, estimating that 74% of 26-year-olds with a current psychiatric diagnosis experienced their condition before they were 18 years of age. Moreover, 50% of participants in that study suffered from their condition prior to 15 years of age. (5)

2. Stigma

Studies show that almost 9 out of 10 of people in European region suffering from mental health problems say they have been affected by stigma and discrimination, and more than 7 out of 10 report that stigma and discrimination was an important barrier in their life (1). Given the fact that many adolescents have their mental disorder from early years, it is possible that adolescents experience life-long stigmatization, which originated in childhood or adolescence (1).

The stigma towards people with mental disorders is an important and challenging issue for people that suffer from mental disorders as well as for professionals working in mental health system and who are attempting to understand, prevent and treat mental illness (9). Only about 50% of people suffering from mental disorders receive professional help (1). Stigmatization is a phenomenon that creates significant barriers for treatment access (10). Findings in the literature show that help seeking issues and lower treatment compliance is frequent consequence of stigma both in adulthood and adolescent population. (11; 12; 13) Adult populations that face stigma undergo through many social and emotional challenges, such as decreased self-esteem, social withdrawal, depression, loss of productivity. (14) Reducing stigma and discrimination can lead to better treatment of mental disorders as well as prevention of depression, anxiety and other mental health issues due to stigma impact (15; 16).

There are many studies that address stigma for adult populations, while the nature and consequences of stigma during adolescence is under-researched. The data that exists suggests that adolescents with mental disorders experience stigma both from their peers and from adults, data show that stigma is a widespread problem (17; 18). The stigma could be expressed in different forms. Experience of harassment, bad attitude and bullying towards adolescents with mental health problems from their peers is common in schools (19). As well feelings of shame, embarrassment and fear of being rejected by others can be added to these (20).

2.1 What is Stigma?

Stigma is a complex phenomenon, it has many components, consisting of cognitive, emotional, and behavioral elements and this fact creates difficulties in empirically measure stigma. There is a need to address many dimensions of stigma for example cognitive dimension of stereotypes, the emotional dimension of prejudice and the behavioral dimension of discrimination all of them should be studied for deeper understanding of the phenomenon stigma (21).

This designation have their origin in the ancient Greece, here the people that didn't match within social acceptable framework were excluded from society and even were marked with a physical sign so called stigma. For example, people with disabilities, illness, or any other atypical characteristics were marked with this physical sign in order to do segregation in society. In our days, people that do not belong to social accepted framework are not marked with a physical sign anymore, but stigma still exists as a social construct in relationship between people and as a psychological concept in people's mind. Thus it represent a feeling of shame when someone is a member of an unaccepted or deviant group (22; 21).

The sole fact that someone is perceived as excluded from society and that there is bad attitude toward a person with atypical characteristics does not give enough understanding of the

complexity of stigma. Researchers detected such elements as stereotypes, prejudices, discrimination, that all are included in the complex issue stigma with different range of power (23). In order to understand better the complex and multifaceted social construct of stigma, its components – prejudices, stereotypes and discrimination will be explained in more details.

There are many proposed definitions of prejudices and stereotypes. Some authors don't make any difference between these two terms, and Prejudice is often used to describe both cognitive and affective aspects of attitudes and sometimes behavioral components (24). However, to a better clarification of the complexity of stigma, it is important to make a difference between stereotypes and prejudice and the majority of researchers prefer to categorize these two concepts in two groups based on their nature in - cognitive and affective constructs. Thus prejudices were categorized as affective constructs and represent an emotional response to an imagined or actual contact with a person from a certain group of people. Some other authors define prejudice as a negative evaluation of someone who belongs to a certain social group (25), while stereotypes are considered as cognitive in their nature and contain perceptions, attributes, beliefs, and judgments about members of a certain group of people. (26) In our mind is impossible to separate emotions from cognition, they function together, but one can be more prevalent than another, in different moments of time, therefore prejudice and stereotypes function in a reciprocal relationship, together, but if some attitudes are more emotional than we talk about prejudices while if the attitude are more intellectual then we refer to stereotypes . Thus, is imperative to acknowledge the important role of cognition and emotions in order to understand stigma better (24).

Prejudice was originally defined as “an antipathy” that is either “felt or expressed” towards out groups (27). The conviction that prejudice is an emotional response to an out group member is generally endorsed by mental health stigma researchers (28; 29; 21). Consistent with this, researchers suggests that prejudice involves affective negative attitudes that influence behavior toward the stigmatized person or group (30).

Hinshaw defines prejudice as “unreasoning, unjustifiable, over-generalized and negatively tinged attitudes” that “connotes a darker affective laden tone” (21). Common prejudicial emotions experienced when evaluating an individual with a mental health problem are pity, fear, anxiety, anger, or irritation (29; 28).

While arguing that prejudice is the emotional aspect of attitudes, stereotypes represent the respective cognitive component. Stereotypes are schemas or beliefs about members of a social group that develop as a result of cognitive and social experience (31). They are “traits that are assigned to an individual based solely on group membership without consideration of intra group variables” (25).

Stereotypes are a natural human response to help reduce the big amount of cognitive resources from the social environment by organizing the world into social categories. In order to reduce the quantity of new information that has to be learned about a new member of a group a

person draw on information that already know about other members of that group (32). The negative side of engaging in stereotyping is that it ignore unique differences that may exist among individuals in the same group. Although the characterizations based on stereotypes may have some element of truth, they are inflexible, and in many cases formed without a good knowledge of the members of the specific group. The rigidity and over-generalization of stereotypes lead to negative attitudes and thoughts, especially towards members of marginalized groups, such as people with mental disorders. The most frequent stereotypes about people with mental disorders are that they are dangerous, violent, unpredictable and personally responsible for their illness (33; 29).

Discrimination in many cases is the behavioral consequence of stigma that includes the differential treatment of one group/individual relative to another. People with mental illness in many countries still have less legal rights, such as the right for making decisions, to create a family, to have equal employment opportunities, etc. (28).

3. Adolescence

According to WHO adolescence is considered to be the period between childhood and adulthood, between the ages of 10-19 years (34). This period represents the transition from childhood to adulthood and is one of the critical transitions in life. Besides physical and sexual maturation, during this period also is expected the development of identity and toward social integration.

During personality development adolescents go through crises and some authors wrote about eight stages of personality development, each presenting a particular psychosocial crisis. Adolescence, according to the theory of psychosocial development is the period in which individuals develop a sense of identity and the concept of the self. In adolescence the main crisis is identity versus identity diffusion (35; 36; 37). During this period, young people strive to find the answer to the question - who they are, what kind of person they will be and who others are in their life. Moreover, in the same period people are greatly influences by the norms and values of society and culture, find their own identity within that framework and also experience a shared identity with others. For a harmonious adulthood young people should emerge from this stage with a firm identity. (38)

Other authors believed that a mature identity can only be achieved if an individual go through a several crises and choosing between few alternatives. In this process by commitment and investment of the self in those choices the young person achieves mature identity. The four statuses proposed in this kind of development process are (37):

Identity Diffusion Status: The person has not started thinking about issues seriously yet, and did not formulate any goals or commitments. This represents the least mature status.

Foreclosure Status: The person has committed to safe and conventional goals and beliefs of parents by avoiding in this way anxiety and uncertainty that appear during crisis. In this stage young person don't consider alternatives seriously.

Moratorium Status: Decisions about identity are postponed while the individual tries out alternative identities, without committing to any particular one.

Identity Achievement Status: The individual has experienced a crisis but went through it successfully with firm commitments and goals. This represents the most mature status (37).

Adolescence is traditionally viewed as a critical stage in the development of attitudes, for example towards politics, religion and morality and that's why may also be an important period in the development of attitudes towards people with mental disorders (38; 35).

The importance of including adolescents in research is highlighted by emphasis on modifying negative attitudes among adolescents in an attempt to stop stigmatization towards people with mental disorders when they will become adults. Additionally, given the differences in cognitive development between adolescents and adults, it is difficult to generalize findings from adults to adolescents. From our knowledge, to date, limited studies have been conducted exploring stigma towards mental illness in adolescents (39).

3.1 The Developmental Importance of Acceptance in group

Since part of our identity is defined in terms of group membership, it follows that there will be a preference to view those in-groups (including oneself) positively and out-groups (different to oneself) negatively. Therefore when considering the issue of stigma towards mental illness, it is likely that people with mental illness (out-group) will be perceived more negatively by adolescents compared to people without mental illness (in-group) and therefore more likely to experience discrimination from them.

Friendship, social network and social participation play an important role in child and adolescents' development (40). Peers represent a fundamental source of social information and one of the most important learning environments for adolescents. At this age most of the peers are from school colleagues. For children and adolescents, in their interaction peers at school share to each other tools and knowledge about how to form and maintain relationships, in this way they develop such skills as cooperation, leadership, understanding of group dynamics and an understanding of social structures. Friendship has an important function in child's and adolescents' development. Peer group in schools represent the population most suitable for friendship at this age. In adolescence for example, friendships help in acquiring social behavior in a framework of acceptable norms in specific society in this way there is more space for increasing knowledge of norms and skills (41). In adolescence, friendships support the

development of logic and emotions, and help individuals in developing identity (35). Although friendships from peer environment play an important role in development during adolescents, this period is also influenced by conflicts between peers. The ability to find resolutions and solve conflicts give to adolescents more skills in interpersonal and social communication (41; 40). Moreover friendship is a dynamic relationship with ups and downs which give opportunity to develop different aspects of personality such as cognitive, behavioral and social interaction. Social connections and friendships within peer group can provide emotional support during stressful situations. In addition, friendships within peer group create more space for acceptance and improve emotional adaptations, in the same time decreasing internalization of symptoms. Moreover acceptance from peer friendships sustain self-esteem and increase academic results. Unfortunately some children cannot have access in peer groups, in this way can be developed negative experiences of interaction with peers. There are two types of not accepted in peer group – rejected and neglected (40).

Research shows that there are differences in behavior between rejected and neglected children. For example adolescents that are rejected tend to be unsociable, more aggressive, with reduced cognitive abilities and more withdrawn (40; 14). While neglected children have more developed cognitive abilities than rejected and controversial children as a consequence they experience less anxiety and depression than popular children. Research did analyze predominately the behavioral profiles and development of rejected children. Deeper analysis of behavior of rejected children show that some of these behaviors represent nothing less than symptomatic of mental disorders, as a result adolescents with mental disorders may represent a dominant subgroup among rejected, but not neglected children (41). In other words rejection in most of the cases is a result of stigmatization from peers in school. (9) The association between peer rejection and externalization of behavior is well studied. Rejection at 6 to 8 years can lead to aggression and hostility at a 4-year follow up. It was also proved that rejection was associated with antisocial behavior. In addition Peer rejection in middle childhood can also develop into delinquency behavior in adolescence. Moreover rejection in adolescence has an important impact on personality development and can lead to drug use in adulthood. Furthermore, research indicated that peer rejection predicted lower results in education and higher prevalence of unemployment (42; 28).

Rejection can lead to both internalizing and externalizing symptoms, but studies indicates that there is more predictive validity in developing internalizing symptoms, developing depression for example. As well research suggests that acceptance in peer group have a protective effect and prevent behavioral problems for children and adolescents at risk. Comparing relationship between emotional and behavioral disorders and negative peer relations to understand which come first, the result shows that regardless of which comes first, problems with peers in childhood may contribute to the appearance of disorder, and at the same time children with disorders may be rejected from peer group in schools and this influence personality development during their

adolescence. In result there is stigmatization towards mental disorder which lead to worse prognosis of a disorder (42; 40).

4. Adolescents and stigma

I think you need an introduction to start the relation between stigma (considering the definitions that you presented previously) and the issues that you present here (not have friends) as a measure of stigma

Research indicates that common symptoms of children with Attention Deficit Hyperactivity Disorder (ADHD) such as poor attention skills, high attention to rewarding stimuli and lack of controlled behavior stimuli create barriers in interaction between adolescents, these lead to rejection of adolescents with ADHD by their colleagues (43; 44). In addition social deficit, passivity, withdrawal, fearfulness often observed as behavioral characteristics in adolescents with depression make them vulnerable to rejection by other adolescents (45).

Studies showed that 10- 15% of non-disordered youth in comparison with 52% of children with ADHD were classified as rejected. Less than 1% of adolescents with ADHD were perceived as popular. When children with ADHD were placed in schools with new peers they were rejected by the end of the first day and peers began to complain about their behavior within minutes. Furthermore, children with ADHD are two times more likely not to have a mutual friend compared to healthy controls. 56% of children with ADHD did not have a friend, 33% had one friend, and only 9% had two friends. In comparison, among non-ADHD adolescents 32% had no friends, 39% had two friends, while 22% had more than two friends. Moreover the friendships of adolescents with ADHD tended to be of lower quality and are less-stable compared to friendships made by peers without disorders (46; 47).

Studies indicate that adolescent boys with ADHD and difficult relationships with other adolescents have higher levels of depression and anxiety, and engage in more criminality and substance use, compared to boys with ADHD that do not have problems with their peers, are not rejected and stigmatized (48). Experiencing low peer relations as a result of stigmatization has a negative effect on the development, academic performance, externalizing and internalizing symptoms and bulimia nervosa (44).

In addition adolescents with depression are often rejected by other adolescents, as a consequence of their symptoms such as poor emotional regulation, anxious behaviors, withdrawal and reticent behavior in the peer group (49). Adolescents with depression are less categorized as popular in comparison with other adolescents without a disorder. However, in comparison with ADHD much less studies are conducted for depression and relationships between adolescents. (50).

Moreover, other study suggests that adolescents with depression may also be at risk of being bullied (51). In another study the results suggests that depressive symptoms appeared before difficulties in relationship with other adolescents, in addition victimization with rejection as a consequence was observed but in the same time did not explain the hypotheses that difficult relations predict depression (52).

Both ADHD and depression lead to difficulties in social experience and both lead to rejection by other adolescents. As a result, rejection can create more difficulties in emotions and behavior of these adolescents, as a consequence it is created a vicious circle. These young people will have difficulties in creating good relationships and being part of a group. The group cohesion is not only an important social agent for all adolescents but is also thought to have a protective influence in times of stress and from potentially adverse outcomes (39; 31). Rejection limits the amount of age appropriate socialization, thus placing adolescents at risk of future problem behavior. For adolescents with mental disorders, rejection may facilitate maintenance and growth of their condition as well as other adverse outcomes over and beyond that incurred by their disorder (21).

Regarding causality attribution of mental disorders and stigma, studies show different results sometimes contradictory, this highlight the importance of further research. Some studies found that the belief of adolescents that mental disorders have psychosocial causes and they can be treated showed less desire for social distance, than was a belief in physical causes and treatment. Attribution theory say that if the causes of mental illness are attributed to psychosocial factors that are outside of the individual's control the behavior towards these individuals will be less negative with less desire for social distance. One component of stigma towards people with depression is that they are weak this was sustained by studies in adolescents where causal beliefs that people with depression are not trying hard enough were frequently endorsed as causes for depression by adolescents. These beliefs were found to be correlated with greater social distance. It seems that the youth think that people with mental disorders have to be blamed for their condition, thus resulting in a greater desire for social distance (39).

Adolescents that considered the individuals with mental illness were responsible for their illness expressed more anger and less pity towards them (39). This in turn was related to being less willing to help them and endorsing treatment in segregated settings. Adolescents who perceived people with mental disorders as being dangerous were likely to feel fear and thus trying to avoid them (28). This corresponds with Corrigan's attribution (2000) model that says that attributions lead people to make assumptions about responsibility such as for example people with mental illness are dangerous, which then results in emotions in individuals such as fear. Subsequently this influences behaviors such as avoidance (28; 39).

In conclusion, when considered in the context of the developmental importance it is imperative that the nature of stigma is comprehensively understood, so that effective anti-stigma campaigns can be developed to facilitate acceptance of young people with mental disorders.

5. Stigma in different social and cultural contexts

There are a few studies that try to compare stigma between people from different countries (53; 54; 10). In a study that compare levels of stigma between Australia and Japan personal stigma and social distance towards mental illness was greater amongst the Japanese public than the Australian public, while perceived stigma was found to be higher in the Australian public compared to the Japanese public. The authors explained that because people who have a mental disorder are considered to deviate from the norm, it might be expected that this would influence more negatively in Japan, where conformity is more valued. As a result, other people probably will not wish to form relationships with them and express a higher desire for social distance (53). Another study found that the Balinese public had significantly more favorable attitudes towards people with mental disorders than the public in Tokyo. Scores indicated that the public of Bali had more favorable attitudes towards individuals with schizophrenia than the public of Tokyo. However, the public of Bali showed greater negative attitudes towards people with depression than the public of Tokyo (54).

The differences were explained by the authors to be a result of the level of contact with people with mental disorders, the assumption was made that Balinese participants have more contact with individuals with mental disorders. This was attributed to the different health care systems in the two countries, and the lack of psychiatric beds in Bali. Negative attitudes were greater towards people with depression due to the less frequent contact with such patients. However because level of contact with people with mental disorders was not measured in both studies, these assumptions remain unsubstantiated (54).

Besides the attempt to explain the data in relation to its culture the authors also explained that possible reasons might be different health care systems which consequently would lead to different levels of contact people have with persons that have mental disorders, other reasons might be different public health education and programs to reduce stigmatization. (53).

One more study found marginal tendency towards stronger devaluation of mental patients in Germany developed country compared to Slovakia and Russia less developed countries, with no significant differences found between the latter two countries. This study tried to compare how mental health reforms, such as deinstitutionalization influenced public attitudes towards people with mental disorders. It was predicted that public attitudes towards people with mental illness would be less favorable in Slovakia and Russia, due to the lower rates of deinstitutionalization in these countries and supposedly less level of contact with people with mental disorders, compared to that in Germany. However, the results were contrary to what was expected. (55).

Research indicates that people from developed and non-developed countries have stigmatizing attitudes towards people with mental disorders. However most of the research to date has been completed in more developed countries and is potentially biased by western perceptions of psychology and society (39).

Given that adolescence is a critical stage in the development of attitudes and a period when individuals develop a sense of identity, it seems important to investigate adolescents' attitudes towards people with mental disorders. Limited studies have been conducted exploring stigma towards people with mental disorders in adolescents and to our knowledge none published study was performed in Portugal and Republic of Moldova (35; 38; 23).

There are interventions that try to change misconceptions and attitudes towards mental disorders and promote positive cognitive, emotional, and behavioral responses to all persons with mental health problems. However, in order to develop such interventions first it is important to understand complex aspects of stigma. Although some studies provide evidence about stigmatization still there are some notable empirical gaps in the literature. Research to assess stigma is a priority for mental health area, especially in adolescents where this question is understudied (56; 57; 58).

Thus, there are currently gaps in our understanding of stigma in young people. It has been argued that modifying negative attitudes among adolescents might reduce the likelihood of them developing into adults with stigmatizing attitudes. Therefore it is important that further research is conducted with this age group. Exploring stigma amongst adolescents has a great importance in order to develop appropriate anti-stigma campaigns (53; 39).

Objective

1. To evaluate stigma towards people with mental disorders in adolescents.
2. To determine socio-demographic factors associated with stigma among adolescents and compare results from Portugal and Moldova.

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Manuscript

Stigma towards people with mental disorders in adolescents: Comparison between Portugal and Moldova

Abstract

Background: Mental disorders are one of the most significant public health challenges. Stigma towards people with mental disorders decrease help-seeking and may be a cause of depression and anxiety. Research regarding the level of stigma and comparison between different countries in adolescence is scarce.

Objective: To study stigma towards people with mental disorders in adolescents and to evaluate differences between Portugal and Moldova.

Methods: In a cross-sectional analysis we evaluated 657 high-school students from Portugal and 612 from Moldova. Data were collected by an anonymous self-reported questionnaire that, beyond stigma, evaluated individual and family characteristics of the participants. Stigma was evaluated using The Attribution Questionnaire for Children (AQ-8-C) test and The Depression Stigma Scale (DSS). After checking the data distribution, data were summarized using means and standard deviations (sd), and comparison were performed using the Student t-test and ANOVA.

Results: The level of stigma mean (standard deviation), measured by the AQ -8-C was 32.10 (8.77) in Moldova and 24.32 (9.20) in Portugal, $p < 0.001$. Adolescents from Moldova presented higher values for all items except for “Fear” that had higher values in Portugal and for “Help” that no significant differences were found between countries. Regarding the Depression Stigma Scale, also adolescents from Moldova presented the higher values, both for personal stigma [19.84 (4.78) vs. 15.09 (5.08) $p < 0.001$] and for perceived stigma [26.43 (4.30) vs. 22.62 (5.15) $p < 0.001$]. In Portugal there is no significant difference between stigma levels when comparing students that have someone in their class with mental disorder. There is no difference in the level of stigma regarding the presence of mental disorder in the family in both countries.

Conclusion: Level of stigma towards people with mental disorders is higher in Moldova than in Portugal.

Introduction

According to World Health Organization (WHO) mental disorders are one of the most significant public health challenges in the European Region, with mental disorders representing 11.8% of total DALYs per 100 000 population in European Region (1). WHO also reported that, according data from 2013, almost 9 out of 10 of people in European region suffering from mental disorder have been affected by stigma (2).

Stigma is a social construct that includes negative attitudes, feelings, beliefs, and behaviors that are configured as prejudice and which has negative consequences for the stigmatized person (3). Stigma towards people with mental disorders can lead to help seeking issues and lower treatment compliance since people with mental disorders avoid visiting psychiatrist or psychologist because they are afraid of the people reaction. Stigma may be one of the reasons that only about 50% of people suffering from mental disorders receive professional help (2). Reducing stigma and discrimination can contribute to better treatment of mental disorders as well as prevention of depression, anxiety and other mental health issues due to stigma impact (4; 5).

Adolescence is a period in which adolescents build up their personality: attitudes, concepts and perspectives towards phenomena are in construction (6). Moreover is wiser and more effective to build a new attitude, then to deconstruct an old one and try to rebuild a new one for adult or older people (7). Furthermore adolescents have higher probability than adults for modifying behavior (8). Adolescence is a period of life most suitable for interventions to decrease level of stigma. However, the magnitude, nature and consequences of stigma during adolescence are under-researched (7) .

Cultural and social characteristics influence our way of thinking, feeling and our behavior (9; 10; 11). Therefore is important to study stigma towards people with mental disorders in different contexts to increase the knowledge about its determinants in order to design more efficient interventions. We will compare Portugal and Moldova, the first is a developed country, while Moldova is a developing country, considered to be the poorest country in Europe (12). The prevalence of mental disorders is high in both countries, but Portugal presented higher values 39% vs. 27% considering lifetime prevalence (13; 14). There are some differences in education system, especially regarding inclusion of children with disabilities in schools that is more developed in Portugal (15) while in Moldova it practically does not exist (14).

We aim to study stigma towards people with mental disorders in adolescents and to understand differences between Portugal and Moldova.

Participants and Methods

This study was developed among adolescents studying between 10th and 12th grades in public schools in Porto, Portugal and Bălți, Moldova. In Porto the biggest public school that provide this level of education was selected, in Bălți two schools were selected by convenience in order to have similar number of participants in both countries. In Portugal the Governamental Department of Education (the official entity that is responsive for schools) approved the study, and authorized us to contact the school. After permission of the directors of the schools (both in Portugal and Moldova), parents and adolescents received oral and written information explaining the study purpose and design.

To estimate the sample size we assume a mean (standard deviation) value of 45.2 (9.1) based on previous results from Moldova (16) and a difference of 1.0 between countries on The Attribution Questionnaire for Children (AQ-8-C). We also take into account the cluster effect by the adolescents in schools, we increased our sample by 1.24 (17; 18). Which result in an estimative for the sample size of 600 participants per country. In Portugal 900 adolescents were enrolled in the selected school, but only 660 questionnaires were distributed because 5 classes were not contacted due to difficulties in arranging their timetable with the researchers and some students in the contacted classes missed school during the week of evaluation. From the 660 distributed questionnaires, three were considered refusals because they were returned without answers; the final number of participants is 657. In Moldova, 700 questionnaires were distributed and 612 students filled the questionnaires which represent 87% of participation rate.

Data were collected by an anonymous self-reported questionnaire that, beyond stigma, evaluated individual and family characteristics of the participants (annex 1).

Education of each parent is used as an indicator of socioeconomic level. We evaluated the self-perceived health using a Likert scale with five options ranging from excellent to bad. Previous contact with disability and mental disorder was measured asking about the presence of illness in the family and about the presence of colleagues with mental disorder or physical disability in the school.

Stigma was evaluated using The Attribution Questionnaire for Children (AQ-8-C) test and The Depression Stigma Scale (DSS). A translation and back translation in Portuguese and Romanian was performed for both scales and no relevant changes were identified.

The Attribution Questionnaire for Children (AQ-8-C) test, developed by Patrick Corrigan (7), use a Likert scale from 1 to 9 regarding 8 items that represent the most important stereotypes that lead to stigmatization of people with mental disorders: pity, dangerousness, fear, blame,

segregation, anger, help, avoidance. Total score range between 8 and 72, with increasing scores representing higher levels of stigma.

The Depression Stigma Scale (DSS), developed by Kathleen Griffiths (19), was used to measure stigma against people with depression. A vignette about a person with depression was presented and students had to fill in a questionnaire measuring the personal stigma (what students themselves believe about a person with mental disorder) and the perceived stigma (what students think most of the people believe about a person with mental disorder). For each subscale (personal and perceived) 9 items were evaluated using a Likert scale from 0 to 4. Total score for each subscale range from 0 to 36, with higher values representing higher level of stigma.

The study was approved by the Ethical committee of the Institute of Public health of Porto University and from Ethical committee of the State University of Medicine and Pharmacy in Moldova. Parents and adolescents received written and oral information explaining the purpose and the design of the study and written informed consent was obtained from both. All information is collected using an anonymous questionnaire.

After checking for normal distribution, data were summarized using means and standard deviations, comparison were performed using the Student t-test or ANOVA. Comparison of proportions were done using chi-square test. Analyses were performed using statistical package for social sciences version 24 (SPSS – 24).

Results

Table 1 describes participants' characteristics and the comparison between Portugal and Moldova. No significant differences between countries are found for sex of students, presence of physical illness in the family, the way they perceive health and type of health care they use. Although statistical significant difference is found for age difference is not relevant. There is statistical significant difference between level of education for both father and mother. Parents of Portuguese students have higher level of education. Portuguese adolescents, report higher level of contact with physical disability and mental disorder in school. Proportion of mental disorders in the family reported by students also are higher in Portugal than in Moldova. Students from Portugal report that have higher proportion of illness than students from Moldova. (Table 1)

Levels of stigma, measured by the AQ -8-C, mean (standard deviation), is higher in Moldova [32.10 (8.77)] than in Portugal [24.32 (9.20)]. Adolescents from Moldova present higher

values for all items except for “Fear” that has higher values in Portugal and for “Help” that no significant differences are found between countries. (Table 2)

Regarding stigma against persons with depression, also higher scores are found in Moldova, both for personal and perceived stigma. Regarding the sub-scale about personal stigma, scores are higher among adolescents from Moldova for all items except for “Unpredictability” that Portuguese adolescents presented significantly higher values [2.26(1.04) vs. 2.01(1.17)]. For perceived stigma subscale, higher scores are found among adolescents from Moldova for all items except for “personal weakness” that are similar for both countries. (Table 3)

Regarding comparison of stigma measured by The Attribution Questionnaire for Children (AQ-8-C) according participants’ characteristics’, by country, we have following results. There is no significant statistical difference between different ages of students in both countries. Father and mother level of education don’t influence the level of stigma in both countries. (Table 4)

In order to evaluate the effect of contact on level of stigma the item about presence of someone with physical disability and mental disorder in the same class is taken into consideration. These items we can compare only in Portugal, because in Moldova there are no students with mental disorders in public schools. Neither having a student with physical disability in the same class, nor having a student with mental disorder in the same class, don’t make a statistical significant difference in stigma level reported by students from Portugal. Mean difference for those that have someone with mental disorder in the same class by AQ8C (-1.18; 95% CI [-2.59; 0.23], $p = 0.101$). Moreover for examining the influence of contact on level of stigma, items about the presence of physical and mental disorder in the family are considered, but again there is no significant statistical difference in both countries regarding these items. (Table 4)

There is significant statistical difference in Portugal between girls and boys with mean difference measured by AQ8C – [-4.91; 95% CI (-6.28; -3.54)], $p < 0.001$. However there is no significant statistical difference in Moldova between girls and boys. (Table 4)

Discussion

Our results show that level of stigma measured by both scales (AQ8C and DSS) is higher in Moldova than in Portugal and this is true for most of the items evaluated. The results found for Moldova are lower than the results from the only one study regarding stigma in mental disorders in adolescents performed in Moldova (16). Regarding Portugal, to our knowledge, there is only one study in Portugal that address stigma towards people with mental disorders but it was developed in adult population (15). Its results are not comparable because they use other measures of stigma.

Moldova is a developing country, while Portugal is a developed country, and the difference found between them is opposite to the results found by Kurihara et al (11) in which people from Bali (developing country) had a lower stigma level than people from Japan (developed country). Schomerus et al (20) in a study comparing Germany (developed country) with Slovakia and Russia (developing countries) found no differences regarding stigma level while in our study results are different. Further studies need to be performed with measurement of economic level taken into consideration in order to understand these contradictory results from different studies.

Previous studies show that contact with people that have mental disorder decrease level of stigmatization (7; 21; 8; 22). Data from our study show unclear results. Regarding the item about the presence of one student with mental disorder in the same class, students reported the same level of stigma in Portugal, in Moldova we cannot do this comparison as a result of the educational system which does not allow to have students with mental disorders in public schools. Regarding the item about the presence of one person with mental disorder in the family in both countries there is no effect on the level of stigma in our study. However in a study developed by Schomerus et al (20) comparing Germany, a western and more inclusive society which allow higher level of contact, with Slovakia and Russia, less inclusive countries, with higher rate of institutionalization and though lower level of contact found no differences regarding stigma level between countries.

Moreover mental health literacy is considered an important factor for reducing level of stigma (8; 19). In our study we didn't measure mental health literacy. Through this measurement we could verify the assumption made on the basis of results from other studies (8) that mental health literacy decrease the level of stigma. However, mental health literacy may be related to level of education. Studies show that people with higher level of education have higher mental health literacy and lower level of stigma (3; 19). In our study, there is difference between levels of education between Portugal and Moldova, in Portugal parents of students have higher level of education, however within both countries, no significant difference on level of stigma is found according to educational level of the parents. These results are different from findings in the literature (19). One possible explanation for our results, we can find in the literature is that both factors – contact and mental health literacy should stick together in order to decrease stigma, and one without the other has lower or no impact on the level of stigma (8).

There are no clear explanation for having higher level of "Fear" item in AQ8C and "Unpredictability" item in DSS in Portugal than in Moldova, that show inverse situation comparing to all other items. In the study developed by Schomerus et al (20) the conclusion was that the cultural-specific aspect of stigmatization may be more persistent and influential than other factors such as contact or mental health literacy. It may be that the cultural-specific aspects represent

the explanation for our findings. Further studies need to be performed to find out what cultural specific aspects may influence the stigma level.

This study have some limitations. One major limitation is that we didn't do validation of this scale. Another limitation is that we evaluated students only from urban area participated, as a result it is not possible to generalize the results for each sample for the country, however since in both countries you have a urban sample, the results from the comparisons between countries were valid. We also need to recognize our limitation to describe determinants of stigma, first because there is no measurement of mental health literacy which is a very important issue. Secondly, although we have enough sample size for the comparison between countries, we may have not enough power to study the determinants of stigma in each country.

Conclusion

Level of stigma towards people with mental disorders is higher in adolescents from Moldova than in those from Portugal. However, our results do not support the role of education or contact to reduce stigma.

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Table 1 - Comparison of Portugal and Moldova regarding socio-demographic data

Item	Portugal N (%)	Moldova N (%)	p value
Age*	16.5 (1.1)	17.0 (0.9)	< 0.001
Sex (Females)	338 (51.6%)	312 (51.0%)	0.866
Level of education father (years)			< 0.001
Higher education	379 (60.1%)	300 (49.0%)	
More than 12 but higher education not complete	106 (16.8%)	270 (44.1%)	
Less than 12 classes: 10 to 12; 7 to 9; and less than 6	146 (23.1%)	42 (6.9%)	
Level of education mother			< 0.001
University	434 (67.6%)	327 (54.6%)	
More than 12 classes	92 (14.3%)	253 (41.3%)	
Less than 12 classes: 10 to 12; 7 to 9; and less than 6	116 (18.24%)	32 (5.9%)	
Repeated the class	68 (10.4%)	0 (0.0%)	< 0.001
Physical disability in class	219 (33.4%)	0 (0.0%)	< 0.001
Mental disorder in class	326 (49.8%)	0 (0.0%)	< 0.001
Physical illness in family	82 (12.6%)	71 (11.6%)	0.606
Mental disorder in family	64 (9.8%)	17 (2.8%)	< 0.001
Perceive health			0.050
Very good	209 (32.1%)	218 (35.7%)	
Good	290 (44.5%)	276 (45.2%)	
Normal	121 (18.6%)	94 (15.4%)	
Weak/Reasonable	32 (4.9%)	203(3.8%)	
Health care			0.254
Health Center	209 (32.1%)	318 (52.0%)	
Private consultation	290 (44.5%)	10 (1.6%)	
Hospital	121 (18.6%)	274 (44.8%)	
Other	32 (4.9%)	9 (1.6%)	
Presence of Illness	100 (15.1%)	31 (5.1%)	< 0.001

*Mean (Standard Deviation)

Table 2 - Comparison of Mental Disorder Stigma between Portugal and Moldova

Item	Portugal Mean (SD)	Moldova Mean (SD)	p value
Pity	5.17 (2.25)	6.88 (2.02)	< 0.001
Dangerousness	2.20 (1.74)	3.72 (1.97)	< 0.001
Fear	1.90 (1.74)	1.54 (1.08)	0.001
Blame	1.30 (1.30)	3.86 (2.50)	< 0.001
Segregation	5.18 (2.82)	6.80 (2.53)	< 0.001
Anger	1.54 (1.67)	1.75 (1.35)	< 0.001
Help	4.00 (2.40)	4.14 (2.86)	0.972
Avoidance	3.02 (2.33)	3.42 (2.50)	< 0.001
Total AQ8C	24.32 (9.20)	32.10 (8.77)	< 0.001

Table 3 - Comparison of Personal and Perceived stigma towards people with depression stigma between Portugal and Moldova

	Portugal Mean (SD)	Moldova Mean (SD)	p value
Personal Stigma			
Snap out	2.03 (1.19)	2.60 (1.27)	< 0.001
Personal weakness	1.57 (1.27)	2.60 (1.18)	< 0.001
Not a real medical illness	1.42 (1.21)	1.80 (0.96)	< 0.001
Dangerousness	1.02 (1.04)	1.65 (1.28)	< 0.001
Avoidance	0.76 (0.99)	1.31 (1.26)	< 0.001
Unpredictability	2.26 (1.04)	2.01 (1.17)	0.001
Not telling anyone	1.30 (1.07)	1.83 (1.49)	< 0.001
Not employ	2.03 (1.13)	2.94 (1.18)	< 0.001
Not vote	2.70 (1.11)	3.10 (1.11)	< 0.001
Total personal DSS	15.09 (5.08)	19.84 (4.78)	< 0.001
Perceived Stigma			
Snap out	2.59 (0.98)	3.33 (0.59)	< 0.001
Personal weakness	2.57 (1.01)	2.58 (1.33)	0.068
Not a real medical illness	2.37 (1.09)	2.69 (0.88)	< 0.001
Dangerousness	2.02 (1.07)	2.48 (1.29)	< 0.001
Avoidance	2.17 (1.11)	2.74 (0.96)	< 0.001
Unpredictability	2.55 (0.95)	3.11 (0.95)	< 0.001
Not telling anyone	2.31 (1.02)	2.85 (1.15)	< 0.001
Not employ	2.95 (0.92)	3.30 (0.70)	< 0.001
Not vote	3.13 (0.91)	3.36 (0.62)	< 0.001
Total perceived DSS	22.62 (5.15)	26.43 (4.30)	< 0.001

Table 4 - Comparison of stigma measured by The Attribution Questionnaire for Children (AQ-8-C) test according participants characteristics', by country

	Portugal		Moldova	
	Mean (standard deviation)	p value	Mean (standard deviation)	p value
Age (years)				
15	25.4 (9.48)		36.2 (7.26)	
16	24.0 (10.00)		32.2 (9.34)	
17	24.0 (9.15)		31.5 (8.27)	
≥18	24.1 (7.18)		32.2 (8.77)	
		0.494		0.204
Sex				
Females	21.9 (7.64)		32.4 (9.02)	
Males	26.8 (10.00)	< 0.001	31.8 (8.50)	0.428
Father education (years)				
Higher education	25.1 (9.57)		32.4 (8.76)	
More than 12 but higher education not complete	23.7 (7.90)		31.6 (8.89)	
Less than 12 classes: 10 to 12; 7 to 9; and less than 6	23.0 (9.38)	0.054	32.7 (8.05)	0.531
Mother education (years)				
University	24.6 (9.33)		32.7 (9.01)	
More than 12 classes	24.0 (7.87)		31.4 (8.60)	
Less than 12 classes: 10 to 12; 7 to 9; and less than 6	23.9 (9.77)	0.732	31.2 (7.15)	0.169
Physical disability in class				
No	24.0 (8.69)			
Yes	24.8 (10.12)	0.311		
Mental disorder in class				
No	23.7 (8.50)			
Yes	24.9 (9.81)	0.101		
Physical illness in family				
No	24.2 (8.88)		32.2 (8.90)	
Yes	24.4 (10.86)	0.921	31.1 (7.67)	0.281
Mental disorder in family				
No	24.4 (9.14)		32.2 (8.75)	
Yes	23.3 (9.27)	0.388	29.2 (9.10)	0.205

Annex

Questionnaire (Portuguese version)

Percepção de Saúde em Adolescentes

Muito obrigado por teres aceitado participar neste trabalho. Pedimos-te que respondas a um conjunto de perguntas sobre a tua saúde e a percepção dessa saúde. As informações que forneceres são muito importantes, pelo que te pedimos que nos respondas com sinceridade.

1. Qual a tua idade? ____ anos
2. Sexo: Masculino ☐ Feminino ☐
3. Na escola, ficaste retido algum ano? Sim ☐ Não ☐
4. Alguma vez tiveste um colega na tua turma com limitações físicas?
Sim ☐ Não ☐
5. Alguma vez tiveste um colega na tua turma com limitações cognitivas/mentais?
Sim ☐ Não ☐
6. Qual é a ocupação/actividade profissional do teu pai? _____
7. Qual é a escolaridade do teu pai?
6 anos ou menos ☐
7 a 9 anos ☐
10 a 12 anos ☐
10 a 12 anos ☐
Mais de 12 anos mas sem completar licenciatura ☐
licenciatura ☐
8. Qual é a ocupação/actividade profissional da tua mãe? _____
9. Qual é a escolaridade da tua mãe?
6 anos ou menos ☐
7 a 9 anos ☐
10 a 12 anos ☐
10 a 12 anos ☐
Mais de 12 anos mas sem completar licenciatura ☐
licenciatura ☐
10. Quantas pessoas moram na tua casa (incluindo-te a ti)? ____
11. Quantos quartos e salas tem a tua casa? ____
12. Algum membro da tua família tem uma doença grave? Sim ☐ Não ☐
Se sim, qual? _____
13. Algum membro da tua família tem algum problema de saúde mental?
Sim ☐ Não ☐
Se sim, qual? _____
14. Em geral, como classificas a tua saúde?
☐ Óptima ☐ Muito boa ☐ Boa ☐ Razoável ☐ Fraca

15. Por rotina, para os teus cuidados de saúde, recorres ao:

☐ Centro de saúde

☐ Consultório particular

☐ Consulta hospitalar

☐ Outro, Qual? _____

16. Tens alguma doença que te obriga a cuidados médicos regulares (tratamentos, análises, consultas...)? Sim ☐ Não ☐

Se sim, qual? _____

Considera a seguinte situação:

O João tem 30 anos. Ele tem-se sentido invulgarmente triste e miserável nas últimas semanas. Apesar de ele se sentir sempre cansado, tem tido problemas em adormecer em quase todas as noites. O João não tem vontade de comer e perdeu peso. Ele não consegue manter a cabeça no trabalho e adia qualquer decisão. Até as tarefas do dia-a-dia parecem de mais para ele. Isto chamou a atenção do patrão do João que está preocupado com a sua redução de produtividade.

As seguintes perguntas contêm afirmações acerca do problema do João. Por favor, indica quanto concordas ou discordas com as seguintes afirmações.

Afirmações	Concordo comple- tamente (4)	Concordo (3)	Não concordo nem discordo (2)	Discordo (1)	Discordo comple- tamente (0)
1. Pessoas com um problema como o do João poderiam sair dele, se quisessem					
2. Um problema como o do João é um sinal de fraqueza pessoal					
3. O problema do João não é uma doença médica real					
4. Pessoas com um problema como o do João são perigosas					
5. O melhor é evitar pessoas com um problema como o do João, para que não desenvolva este problema					
6. Pessoas com um problema como o do João são imprevisíveis					
7. Se eu tivesse um problema como o do João, não contaria a ninguém					
8. Eu não empregaria alguém se soubesse que a pessoa tinha um problema como o do João					
9. Eu não votaria num político se soubesse que o mesmo sofria de um problema como o do João					

Agora gostaríamos que nos dissesse o que pensas que a maioria das OUTRAS pessoas acredita. Por favor, indica o quanto concordas ou discordas com as seguintes afirmações.

Afirmações	Concordo comple- tamente (4)	Concordo (3)	Não concordo nem discordo (2)	Discordo (1)	Discordo comple- tamente (0)
1. A maioria das outras pessoas acredita que as pessoas com um problema como o do João poderiam sair dele, se quisessem					
2. A maioria das outras pessoas acredita que um problema como o do João é um sinal de fraqueza pessoal					
3. A maioria das outras pessoas acredita que o problema do João não é uma doença médica real					
4. A maioria das outras pessoas acredita que pessoas com um problema com o do João são perigosas					
5. A maioria das pessoas acredita que é melhor evitar pessoas com um problema como o do João, para evitar que desenvolvam este problema					
6. A maioria das pessoas acredita que as pessoas com um problema como o do João são imprevisíveis					
7. Se tivesse um problema como o do João, a maioria das pessoas não contaria a ninguém					
8. A maioria das pessoas não empregaria uma pessoa da qual soubessem que tinha sofrido de um problema como o do João					
9. A maioria das pessoas não votaria num político se soubessem que tinha sofrido de um problema como o do João					

Muito obrigada pelas tuas respostas!

Conclusions

Level of stigma towards people with mental disorders is higher in adolescents from Moldova than in those from Portugal. However, our results do not support the role of education or contact to reduce stigma.